

Notice of Allowability

Application No.

10/820,665

Applicant(s)

PAN ET AL.

Examiner

Art Unit

Brian Ensey

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment dated 3/27/06.
2. ☒ The allowed claim(s) is/are 10-17 renumbered 1-8.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Philip Yu on May 16, 2006.

The application has been amended as follows:

In the claims:

In claim 10, line 14, "the spacing" has been deleted and --a spacing--has been added.

In claim 10, line 14, "magnets are" has been deleted and --magnets is--has been added.

In claim 10, line 14, "rings" has been deleted.

In claim 10, line 14, "the voice coil" has been deleted and --a voice coil--has been added.

In claim 10, at the end of line 14 after coil, "the" has been deleted and --a --has been added.

In claim 10, line 15, "the resilient" has been deleted and --an annular resilient--has been added.

In claim 10, line 19, "an annular" has been deleted and --the annular--has been added.

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In claim 10, line 19, "to" has been deleted.

In claim 11, line 2, "further comprising" has been deleted.

In claim 11, line 3, "a vibrating coil (10)," has been deleted and --wherein--has been added prior to "said vibrating coil".

In claim 11, line 5, --said transducer further comprising-- has been added prior to "a rigid sheet (11),".

In claim 12, line 3, "a voice coil (2);" has been deleted.

In claim 13, line 3, -- and--has been added prior to "a perm alloy plate".

In claim 13, line 3, "and other voice diaphragm materials" has been deleted.

In claim 14, line 2, "claim 10" has been deleted and --claim 12--has been added.

In claim 14, line 2, "the inherent" has been deleted and --an inherent--has been added.

In claim 15, line 2, "the inherent" has been deleted and --an inherent--has been added.

In claim 16, line 15, "the spacing" has been deleted and --a spacing--has been added.

In claim 16, line 15, "magnets are" has been deleted and --magnets is--has been added.

In claim 16, line 15, "rings" has been deleted.

In claim 16, line 16, "the voice coil" has been deleted and --a voice coil--has been added.

In claim 16, line 16, “the vibrating coil” has been deleted and --a vibrating coil--
has been added.

In claim 16, line 17, “the resilient” has been deleted and --a resilient--has been
added.

In claim 17, line 12, “, wherein:” has been deleted and --;--has been added after
“integrated”.

In claim 17, lines 13-18 have been deleted.

In claim 17, at the end of line 31(the last line) “.” has been deleted and
--, wherein:

the cylindrical and annular magnets are elliptical column and elliptical ring in
shape;

a spacing between the cylindrical and annular magnets is elliptical in shape;
and

the voice coil, the vibrating coil, the pole core, the magnetic transfer, the
annular pole piece and the resilient plate are elliptical in shape.--has been
added after “sound”.

The following is an examiner’s statement of reasons for allowance: The present invention
is directed to a twin magnetic loop vibrator speaker having an elliptical shape. Independent
claims 10, 16 and 17 identify the uniquely distinct feature of a twin magnetic loop vibrator
speaker wherein the column and annular magnets, the space between the magnets, the voice coil,
the vibrating coil, the pole core, the magnetic transfer, the annular pole piece and the resilient

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plate are all elliptical in shape. The closest prior art, Shiraki (US 6608541) teaches an annular voice/vibration actuator; Chang (US 6754363) teaches an annular dual magnetic loop receiver; Yang (US 2002/0164040) teaches an annular microspeaker for a wireless communication device; and Sakai (US 6539097) teaches an annular multifunctional vibration actuator. The prior art fails to anticipate or render the independent claims obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

The Art Unit location of your application in the PTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Group **Art Unit 2615**.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Ensey whose telephone number is 571-272-7496. The examiner can normally be reached on Monday - Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, Va. 22313-1450

Or faxed to:

(571) 273-8300, for formal communications intended for entry and for informal or draft communications, please label "PROPOSED" or "DRAFT".

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Hand-delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street
Arlington, VA 22314

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKE

May 18, 2006



SINH TRAN
SUPERVISORY PATENT EXAMINER